We claim:

1. A method for detection of disorders characterized by abnormal cell proliferation in an individual comprising

   a. detecting the presence or absence and/or the level of expression of human transketolase like-1 gene in a biological sample obtained from said individual

   b. assessing diagnosis from said presence or absence and/or level of expression, wherein presence of overexpression is indicative of disorders characterized by abnormal cell proliferation.

2. A method according to claim 1, wherein the disorder characterized by abnormal cell proliferation is cancer.

3. A method according to claim 2, wherein the cancer is colon cancer, lung cancer, gastric cancer or pancreatic cancer.

4. A method according to any one of the claims 1-3, wherein the biological sample is a body fluid, a secretion, a smear, a biopsy, a liquid containing cells, lysed cells, cell debris, peptides or nucleic acids.

5. The method according to claim 4, wherein the sample is serum, urine, semen, stool, bile, a biopsy or a cell- or tissue-sample.

6. A method according to any one of the claims 1-5, wherein the detection of the expression of the human transketolase like-1 gene is carried out on a polypeptide level.

7. A method according to any one of the claims 1-5, wherein the detection of the expression of the human transketolase like-1 gene is carried out on a nucleic acid level.

8. The method according to claim 6, wherein the detection on the polypeptide level is carried out using a binding agent directed against human transketolase like-1 polypeptides.

9. The method of claim 8. wherein the binding agent is an antibody, a fragment of an antibody, a peptidomimetic comprising an antigen binding epitope or a mini-antibody.

10. The method according to any one of the claims 6, 8 or 9, wherein the detection is an immuno-cytochemical detection procedure.

11. The method according to claim 7, wherein at least one nucleic acid probe, hybridising to a human transketolase like-1 nucleic acid is used for the detection.

12. A method according to claim 11, wherein the probe is detectably labelled.

13. The method according to claim 12, wherein the label is selected from the group consisting of a radioisotope, a bioluminescent compound, a chemiluminescent compound, a fluorescent compound, a metal chelate, or an enzyme.

14. The method according to any one of the claims 7 or 11-13, wherein the detection reaction comprises a nucleic acid amplification reaction.

15. The method according to any one of the claims 11-13, wherein the amplification reaction is PCR, LCR or NASBA.

16. The method according to any one of the claims 7 or 11-13, which is used for in-situ hybridisation.

17. A method according to any one of the preceding claims which is used in the course of an in vivo or in vitro molecular imaging method.

18. A kit for performing the method of any one of the claims 1-17, which is a research kit or a diagnostic kit.

19. The kit of claim 18 comprising

a. at least one probe for the detection of human transketolase like-1 gene expression products in biological samples;

b. a human transketolase like-1 gene product sample for performing a positive control reaction.

20. The kit of claim 19, wherein the probe is a nucleic acid probe, specifically hybridising to human transketolase like-1 nucleic acids or an antibody specifically binding human transketolase like-1 proteins.

21. A method for treating disorders characterized by abnormal proliferation of cells based on the administration of a pharmaceutical composition containing a human transketolase like-1 gene or gene product in a pharmaceutical acceptable form.

22. The method according to claim 21, wherein the human transketolase like-1 gene or gene product is a nucleic acid in sense or antisense orientation or a polypeptide.

23. The method according to claim 22, wherein the pharmaceutical composition comprises a chimeric nucleic acid comprising a human transketolase like-1 nucleic acid or fragments thereof or a fusion polypeptide comprising a human transketolase like-1 polypeptide or fragments thereof.

24. A method according to any one of the claims 21-23, wherein the disorder characterized by abnormal cell proliferation is cancer.

25. A method according to claim 24, wherein the cancer is colon cancer, lung cancer, gastric cancer or pancreatic cancer.

26. A method according to any one of the claims 21-25, wherein the method for treatment is immunotherapy.

27. A method according to any one of the claims 21-26, wherein the method for treatment is vaccination therapy.

28. Use of a human transketolase like-1 polypeptide or a human transketolase like-1 nucleic acid for the production of a pharmaceutical composition for the treatment of cancer.

29. A method of identifying and obtaining a drug candidate for therapy of tumors of the colon, the lung, the pancreas or the stomach comprising the steps of

    a. contacting a TKT-L1 polypeptide as used in the method of the present invention or a cell expressing said polypeptide in the presence of components capable of providing a detectable signal in response to transketolase activity or to altered regulation of cell proliferation, and

b. detecting presence or absence of a signal or increase of the signal generated from transketolase activity or altered regulation of cell proliferation, wherein the absence or decrease of the signal is indicative for a putative drug.

30. A pharmaceutical composition for the treatment of tumors of the colon, the lung, the pancreas or the stomach, comprising a compound identifiable by the method according to claim 29, an antithiamine compound, an inhibitor of transketolase enzyme activity, an inhibitor of transketolase like-1 activity, a transketolase like-1 polypeptide or a human transketolase like-1 nucleic acid.

31. A method for rational tumor management comprising

a. detection of the presence or absence and or the level of overexpression of transketolase like-1 gene in biological samples

b. building of subgroups according to the presence or absence and/or the levels of transketolase like-1 gene

c. tailoring an adequate therapy according to the subgroups comprising reduction of transketolase like-1 activity in individuals or in cells of individuals.

32. A method according to claim 31, wherein the reduction of the activity of transketolase like-1 is achieved by the administration of antithiamine compounds, of pharmaceutical compositions of claim 31, of inhibitors of transketolase enzyme activity, of transketolase like-1 antisense constructs, of ribozymes specific for transketolase like-1 or by reduced administration of thiamine.

33. A pharmaceutical composition according to claim 30 for use in a method according to claim 31 or 32.